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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/875,415	06/05/2001	Peter James Sutherland Goldsack	B-4199 618841-6	8918

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EXAMINER	
TORRES, JOSEPH D	

ART UNIT	PAPER NUMBER
2133	4

DATE MAILED: 10/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/875,415	GOLDSACK ET AL.	
	Examiner	Art Unit	
	Joseph D. Torres	2133	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 January 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 June 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *3* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipate by Sato, Tsuyoshi (US 5592468 A).

35 U.S.C. 102(b) rejection of claim 1.

Sato teaches a method of making block error rate measurements (col. 18, lines 10-28, Sato; Note: in the equation R = Axα+C, C is defined as β/L where L is a sum of packet lengths of ACK-ed first frames in experienced transmissions after a past transmission or a sum of packet lengths of all first frames in the experienced transmissions per a sum of packet lengths of NAK-ed first frames in the experienced transmissions, whichever is smaller, hence L is a measure of frame or block error rate and R is a means of taking weighted averages of past block error rates with current block error rates, hence is also a block error rate) in a layered protocol communications system (col. 1, lines 15-31, Sato), comprising the steps of: opening and maintaining an information block flow by sending repeated message blocks which are defined at a selected layer in the protocol stack below the topmost layer (col. 1, lines 15-31 in Sato teach that MAC protocol data

units called "data frames" or simply "frames" are used to open and maintain information block flow by sending repeated message blocks which are defined at a the MAC protocol data layer in the protocol stack below the topmost layer; Note: the data link layer at which the MAC protocol data layer resides is well below the topmost application layer in the networking protocol stack); and monitoring ack/nack messages sent in response to the message blocks to determine whether the message blocks have been correctly transported (col. 18, lines 10-28 in Sato teach that ack/nack messages sent in response to the message blocks to determine whether the message blocks have been correctly transported are monitored to determine the block error rate; see Figure 11 in Sato, also).

35 U.S.C. 102(b) rejection of claim 2.

MPEP § 2131.01(III) teaches Extra Reference or Evidence Can Be Used To Show an Inherent Characteristic of the Thing Taught by the Primary Reference

"To serve as an anticipation when the reference is silent about the asserted inherent characteristic, such gap in the reference may be filled with recourse to extrinsic evidence. Such evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill." Continental Can Co. USA v. Monsanto Co., 948 F.2d 1264, 1268, 20 USPQ2d 1746, 1749 (Fed. Cir. 1991). The Examiner introduces Matsunaga, Yasuhiko et al. (US 6532233 B1, hereafter referred to as Matsunaga) and Reference 1 (http://www.webopedia.com/quick_ref/OSI_Layers.asp,

The 7 Layers of the OSI Model) as a teaching references. Note: the Matsunaga patent and Reference 1 are **not** being introduced as Prior Art references, but are being introduced as teaching references for that which is inherent in the art. Sato teaches MAC protocol which exists in the data link layer along with the logical link layer (see Figure 2 in Sato and Reference 1). Note in col. 5, lines 7-15, Matsunaga teaches that it is a function of a layer-2 protocol, i.e., a data link layer protocol, called the Logical Link Control (LLC) layer to discard erred framed, hence error detection code is a predetermined characteristic that causes the message blocks to be discarded upon processing at a selected protocol layer, the data link layer protocol, in a communications unit receiving the message blocks.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

2. Claims 3-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato, Tsuyoshi (US 5592468 A) in view of Decker, Peter (US 5946320 A).

35 U.S.C. 103(a) rejection of claim 3.

Sato, substantially teaches the claimed invention described in claims 1 and 2 (as rejected above).

However Sato, does not explicitly teach the communications system is a general packet radio service (GPRS) and the selected protocol layer is a GPRS mobility management layer.

Decker, in an analogous art, teaches general packet radio services (GPRS) and that the selected protocol layer is the GPRS mobility management layer, GSM. The Examiner asserts that GPRS and GSM are a 7 layer OSI protocol stack as taught in the Sato patent using MAC sub layer protocol services at the data link layer as taught in the Sato patent. Col. 4, lines 24-48 in Decker teach that BER measurement are required, hence one of ordinary skill in the art at the time the invention was made would be highly motivated to combine the Decker and Sato patents to provide a means for computing BER in the Decker patent (Note: Bit Error Rate BER can be calculated from block error rate BLER with the obvious formula BER= bits/block x BLER where $\alpha = \beta = ½$ in $R = A x \alpha + \beta/L$, that is R=BLER).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sato with the teachings of Decker by implementing the teachings of Sato in a communications system that is a general packet radio service

(GPRS) and the selected protocol layer is a GPRS mobility management layer. This modification would have been obvious to one of ordinary skill in the art, at the time the invention was made, because one of ordinary skill in the art would have recognized that implementing the teachings of Sato in a communications system that is a general packet radio service (GPRS) and the selected protocol layer is a GPRS mobility management layer would have provided the opportunity for computing the required BER in the Decker patent.

35 U.S.C. 103(a) rejection of claim 4.

The Applicant admits that GMM_INFORMATION message blocks are part of the selected protocol layer is the GPRS mobility management layer, GSM, as taught in Decker (see rejection to claim 3 and lines 1-3 of page 4 of the Applicant's disclosure).

35 U.S.C. 103(a) rejection of claim 5.

Lines 4-9 on page 4 of the Applicant's disclosure teach each information element of the GMM_INFORMATION message (other than the header) is optional, hence it would be obvious to send a GMM_INFORMATION message in the absence of a message block or any information elements other than a message header.

35 U.S.C. 103(a) rejection of claim 6.

MPEP § 2131.01(III) teaches Extra Reference or Evidence Can Be Used To Show an Inherent Characteristic of the Thing Taught by the Primary Reference

"To serve as an anticipation when the reference is silent about the asserted inherent characteristic, such gap in the reference may be filled with recourse to extrinsic evidence. Such evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill." Continental Can Co. USA v. Monsanto Co., 948 F.2d 1264, 1268, 20 USPQ2d 1746, 1749 (Fed. Cir. 1991). The Examiner introduces Matsunaga, Yasuhiko et al. (US 6532233 B1, hereafter referred to as Matsunaga) and Reference 1 (http://www.webopedia.com/quick_ref/OSI_Layers.asp, The 7 Layers of the OSI Model) as a teaching references. Note: the Matsunaga patent and Reference 1 are **not** being introduced as Prior Art references, but are being introduced as teaching references for that which is inherent in the art. Sato teaches MAC protocol which exists in the data link layer along with the logical link layer (see Figure 2 in Sato and Reference 1). Note in col. 5, lines 7-15, Matsunaga teaches that it is a function of a layer-2 protocol, i.e., a data link layer protocol, called the Logical Link Control (LLC) layer to discard erred framed, hence error detection code is a predetermined characteristic that causes the message blocks to be discarded upon processing at a selected protocol layer, the data link layer protocol, in a communications unit receiving the message blocks.

Hence, Decker teaches the communications system is a general packet radio service (GPRS) and the selected protocol layer is a GPRS logical link control layer.

35 U.S.C. 103(a) rejection of claim 7.

The Applicant admits that GRR_DATA_REQ message blocks are part of the selected protocol layer is the GPRS mobility management layer, GSM, as taught in Decker (see rejection to claim 3 and lines 16-32 of page 4 of the Applicant's disclosure).

35 U.S.C. 103(a) rejection of claim 8.

Inclusion in a message block of an invalid frame check sequence would inherently cause the message block to be discarded at the LLC layer (see rejection to claims 2 and 6, above).

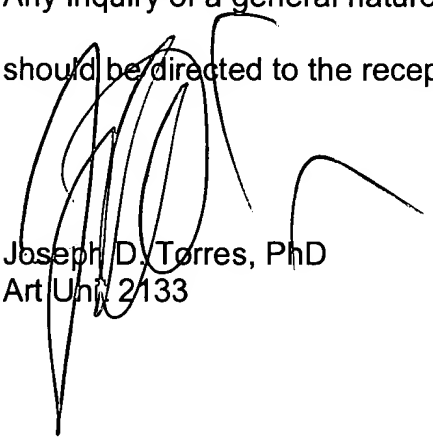
Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sen, Sanjoy et al. (US 6208620 B1) teaches a method and system for implementing robust TCP performance over wireless links utilizing a TCP-Aware Agent Sublayer (TAS). Hook, Mikael et al. (US 6363425 B1) teaches method for communicating forward error correction (FEC) encoded packet information in a digital telecommunications system, wherein the amount of communication resources is variable for each transmission of information and wherein erroneously received packets may be selectively re-transmitted. Balachandran, Krishna et al. (US 6567375 B2) teaches data systems communicating by wireless links and more particularly to adapting the size and coding of packets in order to reduce over-all delay when communicating data over the wireless links.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph D. Torres whose telephone number is (703) 308-7066. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on (703) 305-9595. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-746-7240.



Joseph D. Torres, PhD
Art Unit 2133